AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier.

1. (Original) A fire rated floor door assembly comprising:

a door frame comprising structural elements defining an opening;

a door sized to fit into the frame and occlude the opening, the door comprising:

a top member configured to have a selected orientation in a closed configuration with the door engaging the frame;

a first layer of insulation material positioned along the bottom surface of the door; and

a support structure connected to the first layer of insulation to hold the first layer of insulation in a fixed position that is spaced apart relative to the top member, wherein the first layer of insulation material engages the frame in the closed configuration without any contact between the support structure and the frame.

2. (Original) The fire rated floor door assembly of claim 1 wherein the support structure comprises a support member attached to and extending away from the top member.

3. (Original) The fire rated floor door assembly of claim 2 wherein the support structure further comprises an angle structure having a horizontal component and a vertical component, wherein the vertical component is connected to the support member.

4. (Original) The fire rated floor door assembly of claim 3 wherein the first layer of insulation material is connected to the horizontal component of the angle structure.

5. (Original) The fire rated floor door assembly of claim 1 wherein the first layer of insulation material comprises a plurality of layers of insulation coupled together.

6. (Original) The fire rated floor door assembly of claim 5 wherein the layer of insulation closest to the top member is connected to the support structure.

7. (Original) The fire rated floor door assembly of claim 5 wherein the plurality of layers are coupled together by a plurality of fasteners, wherein the fasteners are aligned such that no contact exists between the plurality of fasteners and the support structure.

8. (Original) The fire rated floor door assembly of claim 1 wherein the first layer of insulation material is selected from the group consisting of an endothermic blanket material comprising ceramic fibers having bound water molecules located within the ceramic fibers, non-woven mineral fibers, non-woven mineral fibers impregnated with fiberglass, fiber board and combinations thereof.

9. (Original) The fire rated floor door assembly of claim 8 wherein the endothermic blanket material comprises Interam™ E-5A material.

10. (Original) The fire rated floor door assembly of claim 1 wherein the door further comprises a top surface and wherein a second layer of insulation material is oriented towards the top surface.

11. (Original) The fire rated floor door assembly of claim 10 wherein the second layer of insulation material is selected from the group consisting of intumescent materials, endothermic blanket materials, non-woven mineral fibers impregnated with fiberglass, fiber board, mineral wool, and combinations thereof.

12. (Original) The fire rated floor door assembly of claim 11 wherein the non-woven mineral fibers impregnated with fiberglass comprise a 3M® duct wrap material.

13. (Original) The fire rated floor door assembly of claim 10 wherein the support structure holds the first layer of insulation in a fixed position relative to the second layer of insulation such that a gap exists between the first layer of insulation and the second layer of insulation.

14. (Original) The fire rated floor door assembly of claim 1 wherein the frame comprises aluminum, an alloy of aluminum or a combination thereof.

15. (Original) The fire rated floor door assembly of claim 1 wherein the top member comprises aluminum, an alloy of aluminum or a combination thereof.

16. (Original) The fire rated floor door assembly of claim 1 wherein the bottom surface of the door is formed by the first layer of insulation material.

17. (Original) The fire rated floor door assembly of claim 1 further comprises a layer of cement surrounding and extending under the door frame such that the cement layer insulates the support structure.

18. (Original) A fire rated floor door assembly comprising:

a door frame comprising structural elements defining an opening;

a door sized to fit into the frame and occlude the opening, the door having a top surface and a bottom surface, the door comprising:

a first layer of insulation material oriented towards the bottom surface of the door;

a second layer of insulation material oriented towards the top surface of the door; and

a support structure connected to the first layer of insulation material to hold the first layer of insulation material in a fixed position relative to the second layer of insulation material such that a gap exists

between the first layer of insulating material and the second layer of insulating material.

19. (Original) The fire rated floor door assembly of claim 18 wherein the top surface of the door is formed by a top member.

20. (Original) The fire rated floor door assembly of claim 19 wherein the support structure comprises a support member attached to and extending away from the top member.

21. (Original) The fire rated floor door assembly of claim 20 wherein the support structure further comprises an angle structure having a horizontal component and a vertical component, wherein the vertical component is connected to the support member.

22. (Original) The fire rated floor door assembly of claim 21 wherein the first layer of insulation material is connected to the horizontal component of the angle structure.

23. (Original) The fire rated floor door assembly of claim 21 wherein a layer of concrete surrounds and extends under the frame such that angle structure is insulated by the layer of concrete.

24. (Original) The fire rated floor door assembly of claim 18 wherein the first layer of insulation material comprises a plurality of layers of insulation coupled together.

25. (Original) The fire rated floor door assembly of claim 18 wherein the first layer of insulation material is selected from the group consisting of an endothermic blanket material comprising ceramic fibers having bound water molecules located within the ceramic fibers, non-woven mineral fibers, non-woven mineral fibers impregnated with fiberglass, fiber board and combinations thereof.

26. (Original) The fire rated floor door assembly of claim 25 wherein the endothermic blanket material comprises Interam™ E-5A material.

27. (Original) The fire rated floor door assembly of claim 18 wherein the second layer of insulation material is selected from the group consisting of intumescent materials, endothermic blanket materials, non-woven mineral fibers impregnated with fiberglass, fiber board, mineral wool and combinations thereof.

28. (Original) The fire rated floor door assembly of claim 27 wherein the non-woven mineral fibers impregnated with fiberglass comprise a 3M® duct wrap material.

29. (Original) The fire rated floor door assembly of claim 18 wherein the door frame comprise a metal, a metal alloy or a combination thereof.

30. (Original) The fire rated floor door assembly of claim 18 wherein the bottom surface of the door is formed by the first layer of insulation material.

31. (Cancelled)

32. (Original) A fire rated door assembly comprising:

a door frame adapted to fit onto a floor surface, the door frame having structural elements defining an opening;

a door sized to fit into the frame and to selectively occlude the opening, the door comprising a top surface, a bottom surface and an endothermic blanket material positioned along the bottom surface of the fire door to reduce heat transfer from the bottom surface to the top surface.